

Gardner's Whys & Wherefores by Martin Gardner. Amherst, NY: Prometheus Books, 1999. xiii + 261 pp. \$18.95 (paperback). ISBN 1-57392-744-9.

Martin Gardner is a fascinating character and the most compelling reason to read this book is to learn more about him. Forty years after first reading his criticism of parapsychology, many of those years enriched by his mathematical games column in *Scientific American*, I learned that Gardner is an expert on "The Rime of the Ancient Mariner," and "Casey at the Bat." I also learned that his taste in humor is low and bawdy.

This paperback is a new edition of a collection first published in 1989. It consists of 16 essays and 20 reviews, plus a new preface to the paperback edition. The essays were originally published between 1965 and 1987; the reviews are dated between 1981 and 1988. Five essays and 16 reviews deal with natural or mathematical sciences or technology. The preface includes brief references to more recent material touching on one of the science essays and five of the reviews, four related to science. So, one would not read the collection to become informed about the latest developments in the sciences.

Gardner writes wonderfully and it would probably be a pleasure to read one of his grocery lists. However, two of his reviews in this volume can be recommended for their relevance to the interests of *Journal of Scientific Exploration* readers.

Chapter 17, "Polywater," originally appeared in *Science Digest* in September 1981. It is a review of the book *Polywater* by Felix Franks (1981). Gardner summarizes the properties claimed for this polymeric form of water and charts the rise and demise of interest in polywater, a process that ended with the conclusion that impurities were the source of all interesting results. His last paragraph is a statement of his view that science is open to unorthodox ideas and tests them appropriately:

On the positive side is the speed with which the scientific community corrected itself. The establishment erred not on the side of dogmatic rejection but on the side of tolerance. There were no witch-hunts. Deryagin did not settle in Siberia. Perhaps four years of fruitless research and acrimonious debate is a small price to pay for the thorough testing of an honestly claimed anomaly. No one interested in the sociology of science should pass up this absorbing chronicle. (p. 156)

Chapter 21, "How Science Self-Corrects," brings Gardner again to his position that science should not be viewed as "a rigid orthodoxy, contemptuous of off-trail thinking." His platform is a review, originally published in *Science* (March 1984), of *Dismantling the Universe* by Richard Morris (1983). He notes Morris's examples of truly bizarre theories, such as the many-worlds interpretation of quantum mechanics, which are published in mainstream journals. He also notes that Morris cites the histories of topics such as polywater as reflecting favorably on science. Gardner supports Morris in refusing to apply

the term "crackpot" to such ideas after they are found to be mistaken, and he also supports Morris's application of "crackpot" to Velikovsky. Gardner feels that there is a vast difference between the methods of Deryagin and Velikovsky. It is likely that everyone would put some scientific theories into each of these categories: well supported, disproved, unproved but promising, unproved and very unlikely. Drawing boundaries can divide theories in this manner; deciding how to draw such boundaries divides the scientific community.

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References

- Franks, F. (1981). *Polywater*. Cambridge, MA: MIT Press.
Morris, R. (1983). *Dismantling the universe*. New York: Simon and Schuster.

Paranormal Experience and Survival of Death (Sunny Series in Western Esoteric Traditions) by Carl B. Becker. Albany, NY: State University of New York Press, 1993. x + 257 pp. \$23.95. ISBN 0-791-414-760.

If, like the present reviewer, you have attained your 80th year, you may be forgiven for wanting to know whether you have at most a few more years of existence on this planet or whether you can look forward to an indefinite future life in some other guise in some other realm. Carl Becker does not purport to know the answer and does not seek to proselytize for any particular faith or creed, but he clearly, and rightly in my view, considers that we have been too hasty in letting ourselves be beguiled by the prevailing scientific materialism into abandoning this ancient and widespread belief.

His first three chapters are devoted respectively to the idea of reincarnation, to hauntings and apparitions, and to near-death experiences. He then turns to general objections to evidence for the paranormal, be they rational or irrational objections. It is followed by a chapter on the conservatism and resistance to change in the sciences. This brings him to chapter six, the final chapter, in which he asks, "What Will the Next World be Like?"

To anyone who still has an open mind on this issue, this book can be strongly recommended. The author does not try to browbeat the reader into accepting any particular position, but reading his book enables us to understand more clearly what is at issue and what we may reasonably believe. The text is fully annotated, and the bibliography runs to some 30 pages.

Like any reviewer, I was agog to spot mistakes, but I could spot only two. Michael Polanyi was never a psychiatrist. He was a research physical chemist who, in later years, made a name for himself as a philosopher of science. Richet's first name was Charles, not Claude. I was surprised that there was no reference to Susan Blackmore's *Beyond the Body* (Heinemann, 1982). She